



ROBOTIC PROCESS AUTOMATION

DATACEPTION

MCKINSEY GLOBAL INSTITUTE ESTIMATIONS

69% of data processing, and
64% of data-collection activities could
feasibly be
automated in any
construction company



APPLICATIONS OF RPA



ON-SITE USERS

ACCURACY IN SURVEY

RPA can be used for precise and accurate layout surveys. It can be used to lay bricks, with accuracy, according to pre-defined patterns

RAW MATERIAL

RPA would help in strategizing and planning for cutting of raw material. This can reduce waste produced during the application of materials

MANUFACTURING

It can be used for manufacturing high-quality raw materials on construction sites. It is largely effective where raw materials are not procured but prepared on site.

SUPPLIES

3D printing building supplies

ON-SITE USERS

DEMOLITION

RPA can be used during the demolition process to avoid any safety hazard i.e., robotics for razing buildings

STORAGE

RPA can help with the storage of construction materials. It can assist with the safe and efficient packing of material without compromising on its inherent traits

OFFICE ACTIVITIES



INVOICING



DOCUMENT
MANAGEMENT



COST MONITORING
& CONTROL



RECRUITMENT

A robotic hand and a human hand are shown against a black background. The robotic hand is at the top, pointing downwards, and the human hand is at the bottom, pointing upwards. Both hands are illuminated with a blue and red light, creating a glowing effect. The word 'INVOICING' is written in large, blue, outlined letters in the center of the image.

INVOICING

STRUGGLE

A lot of construction firms suffer from cash flow problems caused by inefficiency in the generation of accurate invoices. ‘

Generation of invoices is quite a rigorous process and requires a lot of backup data, time, and human effort.

A single invoice consists of several supporting documents.

Compiling these auxiliary documents requires 8-12 hours of manual human effort.

SOLUTION

Here, RPA can be used to streamline different activities and compile documents using simultaneous operations.

However, there is a need for a certain RPA design that would include information on tasks needed to perform for generating invoices.

Once this RPA design is implemented, this process of invoice generation can be reduced to minutes from hours.



DOCUMENT MANAGEMENT

STRUGGLE

Construction companies store documents, plans, and drawings in the form of an outdated folder system.

This document management system has several inefficiencies including misplacement, errors, and loss of documents. This, in turn, has a detrimental impact on overall construction activities.

Moreover, finding the precise placement of folders is difficult and time-consuming.

SOLUTION

All documents are scanned in high quality and users don't need to locate folders each time.

RPA tool would automatically find the exact location of the required folder and save the documents in it.

RPA enhances the management results to improve construction costs, time, and quality.

A vertical image on the left side of the slide shows a white and red robotic hand at the top and a human hand at the bottom, both reaching towards the center. The background is dark with a blue and red light gradient.

RECRUITMENT

STRUGGLE

Construction companies need to hire employees that have skills and knowledge about construction activities.

The manual recruiting process requires face-to-face interviews even for basic information.

This process of recruiting is time-consuming and there is room for errors too.

SOLUTION

RPA can scan various employment sources like LinkedIn to hire recruits with desired credentials and skills.

RPA design would require basic information like education, experience, skills, and certification.

RPA will help to find suitable recruits based on that information.

A vertical image on the left side of the slide shows a white robotic hand at the top and a human hand at the bottom, both reaching towards the center. The background is black, and the hands are lit with a blue and red glow.

COST MONITORING AND CONTROL

STRUGGLE

Cost estimation is a rigorous process if done manually and there are great chances of errors in it.

SOLUTION

RPA also helps in establishing a cost baseline based on an accurately generated estimate report.

RPA tools offer software or programming which needs basic information related to suppliers, materials, contractors, and drawings to generate estimated reports automatically

RPA would perform all the calculations with accuracy which is quite an impossible task for a large-scale, complex project if done manually



THANK YOU

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